CLAIMS:

1. A method of promoting integration of a retroviral vector into the genome of a mammalian cell into which the retroviral vector is introduced, the method comprising inhibiting RAD52 DNA-binding activity in the cell.

2. A method according to claim 1 comprising inhibiting RAD52 DNA-binding activity in the cell by inhibiting production of RAD52 protein.

3. A method according to claim 1 comprising inhibiting RAD52 DNA-binding activity in the cell by inhibiting binding of DNA by RAD52.

4. A method according to claim 2 comprising providing to the cell double-stranded RNAi.

5. A method according to claim 2 comprising providing to the cell antisense RNA.

6. A method according to claim 3 comprising providing to the cell a molecule that binds RAD52 protein.

7. A method according to claim 1 comprising temporarily inhibiting RAD52 DNA-binding activity in the cell.

8. A method according to claim 1 wherein the mammalian cell is a cell-line in culture.

9. A method according to claim 1 wherein the mammalian cell is *ex vivo*.

10. A method according to claim 9 comprising introducing a retroviral vector into a cell removed from a mammal and inhibiting RAD52 DNA-binding activity in the cell.

11. A method according to claim 9 wherein the cell is a stem cell.

12. A method of obtaining an agent that promotes retroviral integration into the genome of a mammalian cell, the method comprising:

selecting one or more test substances that bind RAD52 protein and/or inhibit RAD52 binding to DNA;

testing the test substance or substances for ability to promote retroviral integration into the genome of a mammalian cell, by providing each test substance within a mammalian cell into which a retroviral vector is introduced and determining a change in retroviral integration into the genome of the mammalian cell compared with a control experiment,

wherein an increase in retroviral integration compared with the control experiment is indicative of ability of the test substance to promote retroviral integration into the genome of a mammalian cell and said agent is thereby obtained.

13. A method according to claim 12 comprising obtaining one or more test substances that bind RAD52 protein by contacting RAD52 protein or a DNA binding fragment thereof with test substances and selecting one or more of the test substances that bind RAD52 protein or the DNA binding fragment thereof.

14. A method according to claim 12 further comprising formulating the obtained agent into a composition comprising at least one additional component.

15. A method of obtaining an agent that promotes retroviral integration into the genome of a mammalian cell, the method comprising:

selecting one or more test substances that comprise RNA with nucleotide sequence complementary to a mammalian *RAD52* gene sequence, which RNA is dsRNA or antisense RNA or is a ribozyme specific for a mammalian *RAD52* gene sequence;

testing the test substance or substances for ability to promote retroviral integration into the genome of a mammalian cell, by providing each test substance within a mammalian cell into which a retroviral vector is introduced and determining a change in retroviral integration into the genome of the mammalian cell compared with a control experiment,

wherein an increase in retroviral integration compared with the control experiment is indicative of ability of the test substance to promote retroviral integration into the genome of a mammalian cell and said agent is thereby obtained.

16. A method according to claim 15 further comprising formulating the obtained agent into a composition comprising at least one additional component.

17. A method of inhibiting retroviral integration in a mammalian cell, the method comprising increasing mammalian RAD52 DNA-binding activity in the cell.

18. A method according to claim 17 comprising causing overexpression of mammalian RAD52 protein or a DNA-binding fragment thereof within the cell.

19. A method according to claim 18 comprising introducing into the cell nucleic acid encoding mammalian RAD52 protein or a DNA-binding fragment thereof.

21. A method according to claim 17 wherein the cell is *in vitro* or *ex vivo*.